
THE
FLORIST'S COMPANION.

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THE FLORIST'S COMPANION;

CONTAINING

THE CULTURE AND PROPERTIES OF THE

Auricula,	Tulip,	Anemone,	AND
Polyanthus,	Polyanthus-	Ranunculus,	Carnation
Hyacinth,	Narcissus,	Pink,	—

PARTICULARLY ADAPTED TO

THE NORTHERN PARTS OF THIS KINGDOM,

AND A

NECESSARY GUIDE

IN THE MANAGEMENT OF

THOSE BEAUTIFUL ORNAMENTS OF THE
BRITISH GARDEN.

SELECTED CHIEFLY FROM THE WRITINGS OF

THE MOST ADMIRABLE AUTHORS ON THE SUBJECT;

AND INTERSPERSED WITH

ORIGINAL REMARKS BY EXPERIENCED FLORISTS.

BY JOHN HUDSON, NEWCASTLE;

At whose Garden a choice Collection of all the above
Flowers may be seen and purchased at their
respective Times of blooming.

"A Garden is the purest of human pleasures; it is the greatest refreshment to the spirits of man, without which buildings and palaces are but gross handyworks. And a man shall ever see, that, when ages grow to civility and elegance, men come to BUILD stately, sooner than to GARDEN finely; as if garden-
ing were the greater perfection." VERULAM.

NEWCASTLE UPON TYNE:

Printed for the EDITOR; and sold by the Bookfellers in New-
castle, Shields, Sunderland, Durham, Alnwick,
Hexham, and Carlisle.

THE
FLORIST'S COMPANION;

OR
THE FLOWER-GARDEN OF THE
FARMER, GENTLEMAN, AND GARDENER.

IN TWO VOLUMES.
THE FIRST CONTAINING THE
ARTS AND MYSTERIES OF THE
FLOWER-GARDEN, AND THE
CULTURE OF THE MOST
VALUABLE PLANTS, FRUIT-TREES,
AND SHRUBS, IN THE
OPEN FIELD, AND IN THE
POT.

BY
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Advertisement.

AN admiration of the various contrasted scenery of Nature is so congenial to the mind of man, that almost every object has its power of delighting. The transitions from the naked heath to the crowded grove, from the frowning cliff to the fertile plain, excite by turns his enquiry and his wonder.—Without the aid of scholastic refinements, and led only by the light of reason and the voice of truth, he can contemplate, amidst the myriads of beauties that every-where surround him, the immensity of that Being, whose benevolence pervades the

universe, and whose love and mercy protect and sustain it.—Amongst the innumerable graces of inanimate Nature, which learning and genius have laboured to display, are the humble but elegant tenants of the garden. To obtain these, no toil has been thought too great, no price too exorbitant.—For these, the Alps and the Andes have been successfully scaled, and the remotest regions of the earth adventurously traversed. For these, men of the greatest nautical skill have navigated unknown seas, have penetrated the forests of both the Indies, have exposed themselves to the burning heat of the torrid and to the biting frosts of the frigid zones, undismayed by their savage and destructive inhabitants.

Of the advantages arising from this arduous perseverance, the Editor has so far

far availed himself, as to include in his plan a description of those flowers, which, since their introduction to this country, are most in esteem, and most sedulously cultivated.—Of these the *Auricula* is properly placed at the head, not only as one of “ the earliest of the year,” but as uniting in itself a greater diversity of colours, and exhibiting more properties than any other species of the blooming vegetable tribes.

Care has also been taken to adapt the whole to general comprehension, to unravel the maze and mystery of system, and to exhibit Nature in her genuine simplicity. The friend of Flora will here find his labours agreeably facilitated, latent beauties developed, and the art of ornamental gardening rendered plain and familiar.

Other motives for this publication
are

are the increased avidity with which the rearing of fine flowers at present prevails in this country, and the scarcity of books calculated to regulate this pursuit. Most of the latter are either too voluminous, too complex, or ushered into the world without sufficient regard to the acknowledged variety of soil and climate ; circumstances which, while they damp the endeavours of the juvenile Florist, eventually threaten to ruin the art.—That so gloomy an event may be long at a distance is the sincere wish of the Editor, whose own personal experience has impressed upon his mind the strongest conviction of the utility of a well-managed flower-garden, both as it contributes to the enjoyment of health, and as it furnishes a most rational employment for that leisure which might otherwise be dedicated to trifling or folly.

In

In the arrangement of the materials for this publication, it has been the peculiar attention of the Editor to compress, within reasonable bounds, whatever appeared superfluously copious, to avoid an unnecessary tinsel of stile, and to combine the purposes of brevity with those of usefulness. Authorities sanctioned by the suffrage of time, and experience arising from unexceptionable practice, have been plainly and faithfully detailed, without regard to those opinions by which ingenuity may have been combated, or that malice which the establishment of science has too frequently provoked.

By some of his very numerous and respectable subscribers an apology for the size of his volume may probably be expected. To these he begs leave to observe, that, having by previous advertisement restricted his labours to

a description of the culture and properties of the principal Prize Flowers of this country, he humbly conceived his duty was fulfilled when that task was accomplished. It was also his earnest wish that *The Florist's Companion*, while it contained every thing on the subject that was useful and necessary, should likewise be a portable pocket directory, and at any time consulted with ease and convenience, abroad or at home.

NEWCASTLE,
January 14, 1794.



EXPLANATION

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*Of the BOTANICAL TERMS made use of in the
following work.*

PETAL.—The leaf of a flower; a mark of distinction from the green leaf of a plant.

COROLLA.—Those leaves, or petals, which constitute a flower or blossom. When this consists of but one leaf, like the *Auricula* and *Polyanthus*, it is called *monopetalous*; but when it is divided to the bottom, each part is called a petal; on this account the *Tulip* is said to have six petals; in double flowers, as the *Pink*, *Carnation*, &c. the petals are very numerous, and the Corolla of these is termed *polypetalous*.

CALYX.—The flower-cup, or that part which incloses and protects the corolla or blossom, as in the *Pink* and *Carnation*.

LAMINA.—A thin plate—the upper expanded part of a leaf or petal

UNGUIS.—The lower narrow part of a petal, called the *nail* or *claw*.

PEDUNCLE.—The foot-stalk of a flower, growing from the main-stem, and supporting the corolla, as in the *Auricula*, *Polyanthus*, &c.

LIMB.—A border—the upper expanded part of a monopetalous flower.

TUBE.

TUBE.—The lower and narrow part of a monopetalous flower.

STAMINA.—Fine threads that grow up in the flowers of plants, upon which the construction and distribution of the sexual system is principally founded.—Those flowers which want this part are called *female*; those which have it, but want the female part, are called *male*; such as have them both, *hermaphrodite*; and such as have neither, *neuter*.

ANTHERÆ.—The summit of the Stamina, containing the pollen or meal destined for impregnation.

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THE

THE
FLORIST'S COMPANION.

AURICULA.

THE pride of the English florist, and the glory of the garden, admirable alike for the variety of its colouring, the stateliness of its form, and the delicacy of its fragrance, is the Auricula. This beautiful flower grows naturally in several mountainous parts of Europe, particularly the Alps, and even in its wild state has many charms to recommend it.— Though the places where they abound are covered with snow a great part of the year, yet with us, in their cultivated state, we find nothing more destructive to these plants than snow, or much wet of any sort. That wonderful variety, which at present enriches the stock of the florist, is supposed to have originally proceeded from the common yellow, though the purple is considered by many as equally entitled to a share in the origin of the family; we have, however, numerous beautiful sorts to breed from, and from these the

A variety

variety is constantly multiplied, and the splendor of the collection yearly increased. New faces are also to be obtained from seeds; and the raising of these is the florist's felicity. With these he exults at the annual feast, calls them after his own name, and, in the honest elation of his heart, appropriates to himself much merit on their account. A new and valuable flower, once raised, may stand for ages; and it is the number of these of which our collection consists. They are all named, and are well known to the world of florists; they are carefully numbered, and regularly booked; and it is by offsets, or dividing their roots, that the plants are increased, and the stock kept up.

Thus the culture of a collection is to be continued, till, by degrees, new faces appearing, the worst sorts are thrown out to make room for them; though it will be a series of years before the admission of a new face is banished, to give place to another, which may not be always the best.

A leading point in the increase of the Auricula is the right and judicious management. A deficiency in this respect has often damped the ardour of the young florist, who has been the melancholy witness of his own loss, of a loss that could only be repaired by a new collection.

To guard against this evil, and to encourage the pursuit, the first thing he must furnish himself with is a proper compost in which to plant his flowers.—The following, which has been proved by successful experience to be one of the best, which has hitherto been confined

to

to private practice, and which is easy in the preparation, is now humbly submitted to the attention of those persons who wish to make the culture of the Auricula an object of their study and amusement.

Whatever quantity of compost may be required, let one half be well rotted cow-dung, at least two years old; one fourth of light fresh loam; one eighth of sea or river sand; one-eighth of rotted willow-wood, or, if it cannot be got, the same quantity of rotted tanners bark. This compost should be placed in an open situation, and exposed to the air and sun, from which it will receive great benefit. It should be turned over at least once a month, particularly in winter, as the frost is of great service to it; it should also be laid in a heap every time it is turned over, which will be the means of mixing it the better. In this state it may remain two years before it is made use of; but by turning it often over, and mixing it well, it may be used the sooner. The compost should be always kept free from weeds, as they rob it of its strength and nourishing qualities. The due preparation and proper management of the compost is of great importance; nor will plants succeed well, if this part of the duty be not strictly attended to. The loam or earth that is used should be of a light nature, so as not to bind; for when compost binds or turns hard, no plant can possibly thrive in it. The most suitable time to transplant or pot Auriculas is the first week of February, and the first week of September, these being the two seasons when they begin to grow. This, however, ought not to be done in May, as many authors

advise; for at that time they have not more than three weeks or a month to grow before the hot weather sets in, which not only dries up the juices, but reduces the plants to a torpid state for at least three months. If this operation of fresh potting be not performed till the second year, the compost must have lost its strength, which will cause such a disease to the plant as may in all likelihood entirely destroy it. During the heats of Summer the Auricula is most liable to catch a destructive disease, which has often destroyed large collections in the course of a few months. This has been the case with several, both in the northern and southern counties of England, particularly in the south; but it seldom happens in a cool season. When this disease has once taken possession, it is almost impossible to stop its progress; and both the disease and the difficulty of cure are increased by an improper compost. The surest preventive is that of removing any plant, that appears to be infected, to some other part of the garden. The first symptoms of this disorder are discovered by the plant's turning to a yellowish colour, decaying on one side, and the heart of the plant itself rotting quite through; so that, in this case, no time must be lost in fresh potting into proper compost, removing it into a shady situation, and covering it with a glass. Cutting away the part affected has sometimes been attended with good effects; for, by throwing out fresh offsets, the plant has been saved.

In the month of February, when the pots are supplied with fresh compost, there is an opportunity of seeing
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whether any offsets can be taken from the mother plant, or if they have struck any new fibres; if they have, they should be taken off, and planted in halfpenny pots, as plants taken off at this season are likely to bloom well in the next. The offsets may likewise be taken from those plants that are well rooted in May, when the blossom is done; but if they are not well rooted, it will be much better to defer this business till September, they having then a longer time to grow. That being also a proper season for removing the pots, care should be used not to take any offsets but what are well rooted, and clear from the mother plant; if they are either torn or cut off, a wound will be made, by which the old plants are frequently lost, and such offsets as are cut seldom do well.

At the time of fresh potting Auriculas, they should be carefully turned out of the pots, and the earth gently shaken from their fibres. If the fibres are long, it will be necessary to shorten them with a knife, cutting away, at the same time, any unsoundness that may appear betwixt them and the leaves of the plant; for should the smallest particle of decay be suffered to remain, the whole plant will quickly be infected, and soon after die. When the lower leaves of the plant are found to become yellow, they are in a state of infection, and must be pulled off, drawing them gently downwards with the hand.

In the business of replanting, care must be taken to have pots of a size suitable to that of the plant. A good blooming Auricula may have a pot of three-

halfpence in value, and for the largest plant one of not more than two-pence; for it has been proved by experience, that in pots of large dimensions, the Auricula never does well. The offsets should be planted in a halfpenny pot.

When the fibres of a plant get to the outside of the pot, it will grow very fast; and those plants that were taken off in February should then be removed from a halfpenny pot to a penny one. In doing this, fill the pots about three parts full of compost, making a little hill in the middle; spread the roots of the plant round the pot, and fill it with compost to within half an inch of the top, which will keep the water from running off.—The proper depth for planting the Auricula is about half a inch betwixt the low part of the outside leaves.

In the middle of April the plants must be removed to an airy and well shaded situation, taking care that no drop from trees, houses, &c. can fall upon them; as wet of any kind, at this period of their growth, would be highly injurious. A bed of coal or glass-house ashes, about four or five inches thick, must be made under the pots, which will preserve the compost from being hurt by worms.

The plants are to remain in their Summer situation till September or October, if the weather be favourable; they should then be removed to their Winter quarters, for the latter of which, a hotbed frame ought always to have the preference. Care must be taken that the glass is perfectly whole, so as to keep out the rain; and that
a bed,

a bed, the size of the frame, made of glass-house or coal ashes, be ready for its reception. On this frame the pots are to be placed in rows; a much safer method than the common one of plunging them in saw-dust, or any other material; for when plants are plunged and get wet, and the lights are not taken off to give them proper air, they are very apt to mildew.

The frame should be covered with mats in severe frost, and particularly in the early part of the Spring; as at that time the flower begins to shew itself, and, without this necessary precaution, the bloom might sustain material injury. In the Spring, when the plants shew their stems, if there should be more than one stem to a plant, it should be pinched off; in this case, by taking away the weakest, the blossoms of the remaining stem become larger and more vigorous.

When the pips of the flower begin to expand, they must be preserved from rain; nor should they remain any longer in a sunny situation, but should be removed to a shady part of the garden, and covered with hand-glasses. Three half bricks, placed edgeways under the glass, will give sufficient air to the plant.

Whenever the earth on the surface of the pot appears green or mossy, it must be stirred up about an inch deep, without disturbing or breaking off any of the fibres. The most adviseable way of doing this is to take the mossy surface entirely away, and put fresh compost in the room of it.

The surest method of obtaining fine Auriculas by seed is from young healthy plants, of high-coloured
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forts and best properties. When they are near the bloom, they should be taken from the rest to a different part of the garden, and there exposed to the sun, air, and rain, when the last is moderate; but if excessive, they should be covered with a frame or hand-glasses. The seed will ripen in July, at which time the plant must be carefully examined, and such pods of seed gathered as have the appearance of white or brown. If all the pods upon the stem are ripe, they may be cut off with a part of the stem.

In preserving the seed, the best method is to let it remain in the seed-vessel, and keep it in a dry place till the season for sowing. The month of February is the most proper time for sowing *Auricula* seed; when a few large pots or small boxes, suitable to the hand-glasses, are to be in readiness. Fill them with compost to within an inch of the top, and shake the pot or box till the earth settles; then make the surface perfectly smooth, and sow the seed. This done, take a little very fine light earth in the palm of the hand, and distribute it in so regular a manner as just to cover the seed.

It was owing to their ignorance of this part of the process that the ancients looked upon Nature only to be capable of encreasing these plants, and thought that the raising them by seed was not in the power of art. The reason why they always failed in their attempts was, they covered them with mould in the usual way, and it was not in the nature of the plant to break through it; so that, while they were ruminating that Nature alone could

could multiply these plants that way, she was teaching them the true method of culture. They might observe seedlings rise near the mother-plants, without art or management; and this should have directed them, in sowing, to scatter them accordingly, and expect the like success.

Before the compost be used, a material circumstance, and never before made public, requires all the attention of the florist. He must be provided with an iron or earthen vessel, which must be placed upon a slow fire; into this vessel let the compost be put, by a little at a time; keep it constantly turning, and be careful not to let it burn; make it so hot as that nothing can live in it; it will then be ready for use, and will be found effectually to destroy all kinds of spawn and insects, which, for want of this necessary precaution, frequently kill the seedlings, by turning them out of the ground when they first appear.

The pots or boxes which contain the seedlings should be placed at the bottom of a hot-bed frame, or any other shady place, covering them with glasses. The best kind of glass for this purpose, and which has been found by experience to retain moisture longer than any other, is the black or bottle glass;—these should be always preferred, as they supply in some measure that moisture so necessary to the health of the infant Auricula, which would inevitably suffer if kept too dry a single day.

The best method of watering is by means of a hard cloaths-brush dipt in soft water, from which the chill
has

has been previously taken by standing in the sun; the hair side of the brush being turned upwards, and the hand rubbed briskly over it, a fine and gentle dew-like sprinkling will be produced; and, in about five weeks after, the young plants will make their appearance. It then becomes necessary to give them more air, by which they may be hardened and rendered more fit for entire exposure.

In April, if the weather be hot, they should be removed to a situation facing the North, taking care, at the same time, to guard them against heavy rains. In October, they will be ready to transplant into pots or boxes filled with fresh compost, about an inch asunder; and when they are again grown so as to touch each other, they may be a second time transplanted into larger pots or boxes, allowing a space to each of three or four inches, where they may remain till they blow.

The following are the properties which constitute a fine Auricula.—The flower consists of a bunch or truss, of petals, by florists called pips, supported by as many pedicles, or little foot-stems, rising out of the top of one main stalk.—The properties may therefore be well distinguished and divided into those which regard the pips, those which respect the bunch or truss, and those which belong to the main stalk.

The petals or pips of an Auricula have four remarkable parts, viz. the disk, or outer rim; the eye, or inner rim; the tube, or pipe; and the brush, or thrum, so termed in the florist's language, but otherwise called chives and apices by botanists.

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The properties belonging to the perfection of the pips are, 1. The disk or rim to be of a lively and good colour or colours, such, as may suddenly strike and captivate the sight: for this property is the foundation of all the rest. It is that which makes the flower valuable at all, or to be preferred before the grass or foliage of the plant that bears it. If the colours therefore make a faint or dead appearance, or are of an inelegant and ordinary tinge or hue, the flower is good for nothing; even tho' all its other properties should be the most excellent: because all the rest are not otherwise of any account, but as they assist in the more full and perfect display of this chief one of colour.

2. The colours (in all painted and brindled flowers) ought to be so equally distributed over the rim or disk, that there may be an agreeable uniformity amidst the variety; so that, upon the whole, the sight may not be in the least offended with any disproportion, or see one side remarkably of a lighter or darker hue than another.

3. The out edge of the rim ought to be of a round figure, or at least so near it, as that the indentions may bear but a small proportion to the breadth of the disk; for when these are deep and wide, and the points of the segments stand in the star form, greatly divided, the vacancies will offend the sight with an obvious deficiency and want. The case is still worse in those pips which are subject to run out into a greater breadth on one side of the eye than on the other:—This irregularity and disproportion is very disagreeable.

4. The eye (which is the iris or annulus that envi-

rons

rons the tube or pipe) ought to be formed, like the disk, either perfectly, or nearly round, and one entire clear colour; of a strong and pure white in all painted and brindled flowers, and either the same, or of a bright yellow or good straw colour, in whole-coloured flowers.

5. The eye should be well defined from the disk: That is, it ought not to be mixed with, or shaded into it, so as to occasion any indistinctness between the edge of the one and of the other.—In flowers, where these two properties of the eye are imperfect, the lively contrast or opposition betwixt the rim and the eye, which otherwise reciprocally shew one another off to advantage, is in a great measure destroyed.

6. The face of the whole pip (disk and eye) ought to be so well opened, as to lie exactly, or very near, flat; for when either it inclines inwards, which is called cupping, or throws itself backward, as a martagon, both the true form of the flower, and part of the colours, are thrown out of sight, and the whole truss is greatly disfigured.

7. The tube, or pipe, should stand exactly in the center of the pip, and be truly circular, or round.

8. The tube should be well filled with chives, and their apices in the form of a brush, generally called the thrum, arising even with the face of the pip: For when only the style, or pointal, rises like a pin, without being encompassed with the chives to the same height, the flower is called pin-eyed; and shews a chasm, or vacancy, so very unpleasant to the eye of a curious florist, that such flowers, tho' they may otherwise have
good

good properties, yet, failing in this central beauty, nothing can atone for it, and they are of very small account.

9. The thrum should be of a bright colour, and the chives and apices of which it is composed, clear and distinct; for when they seem clotted together, or look battered or mis-shapen, or of a dull colour, the beauty of the flower is greatly disturbed and impaired,

10. The rim, the eye, and the pipe ought all to bear an agreeable proportion to one another; for where any one of these is beheld either too large or too small, with respect to the other two, it will give the sight of a florist great offence:—Thus, if the rim is too large, the whole pip will look heavy and clumsy, and the eye will appear narrow and mean; if the rim is too small, it will look abortive, and the eye monstrous:—Also, if the pipe is too wide, the thrum cannot fill it duly, and it will look vacant; if the pipe be too small or narrow, it will seem pinched, and the thrum will not have room; so that there will be an apparent want of due grace, air, and freedom. Perhaps the best proportion may be observed where the semidiameter of the pipe is one, the breadth of the annulus of the eye one, and the breadth of the disk, or rim, one and a half.

11. It is an excellent property of an Auricula, to be a good trusser; that is, one which generally puts forth a great number of pips from the main stalk; for, by that means, the beauties of the flower are vastly multiplied, and make on the whole a most noble and delightful appearance.

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12. The length of the pedicles which support the pips in the trufs, should be proportioned to the number and fize of the pips that they fustain; for if the pedicles are very long, and the pips few and fmall, there will be unfightly vacancies in the trufs; or, if they are fhort, and the pips many and large, they will be too much crowded together; fo that neither the colours can be fully viewed, nor the other properties of the pips duly difplayed.

13. The pedicles fhould be fufficiently ftrong and firm, that they may not droop with the weight of the pips, nor fall loofe and jangle in a diforderly manner, but fupport the trufs entire and clofe, without either vacancy or crowding, fo as to form one compleat free blown flower.

14. The pedicles ought to be near all of the fame length; fo that the pips may ftand together at the like height, and form a regular umbel, or rather corymbus, which is the formal perfection of the trufs.

15. The pips fhould be all fimilar; that is, fo near of the fame fize and colour, as not to be eafily diftinguifhed from one another; for otherwife the unity and harmony of the trufs will be deftroyed, and, tho' ever fo perfectly formed, it will appear as if it were made up of pips taken from different forts of Auriculas.

16. It is an exceeding good property of an Auricula to blow freely, and expand all its pips nearly at one time; for by this means the colours in them all will appear equally frefh and lively; whereas in thofe
which

which do not blow some of their pips till others have passed their prime, the whole appearance of the truss falls much short of that beauty which would otherwise be seen.

17. The stalk which supports the truss ought to be straight, and sufficiently strong to bear it up without drooping.

18. It is an excellence of the stalk to be lofty as well as erect; for thereby the truss, and consequently the whole flower, will make a more stately and commanding appearance.

To these eighteen properties, which complete the florist's idea of a beautiful Auricula, ought to be added, the graceful display of a good plant, covering the top of the flower-pot with fresh verdure or foliage of luxurious growth and an agreeable green colour, such as are expressive of the most perfect health and vigour; this vastly enriches the whole view of the flower and plant taken together. Moreover, tho' every Auricula that has the above-mentioned properties cannot fail of pleasing the most curious and critical florists, yet as, upon one hand, an Auricula may be somewhat deficient in several particulars of small consideration, and yet be justly esteemed a fine and valuable flower; so, on the other hand, it will be a farther addition to the excellence of an Auricula, which has all the properties, that it naturally stands long in bloom, and wears its colours without fading or alteration; and also when the flower be-

gins to decay, (as decay it must, like all other terrestrial beauty) if the colours fade equally, slowly, and gradually, the florists think it an addition to its character, and is by them termed *dying well*.



POLYANTHUS.

XX

P O L Y A N T H U S.

THIS beautiful flower is produced about the same time as the Auricula, and requires nearly the same treatment: It is a native of Turkey, where it flourishes in the same manner as the Primrose in this country.

It is the practice in the neighbourhood of London, and several other parts of the South, to keep the Polyanthus in pots, in the same manner as the Auricula is with us: But this mode of treatment has been found, by experience, not to agree with the disposition of this plant in our more Northern climate.—To have this flower in perfection at the usual time in the Spring, it should be planted in a rich and shady border, where it will not have that tendency to blow, as is the case in more open situations, at unseasonable times. Whenever a premature blow makes its appearance, it should

be nipped off, that the vigour of the plant may not be diminished.

The roots should be planted five or six inches asunder; and the longer and broader the border is, thus properly furnished, the greater and more various will be the exhibition.

This plant cannot bear excessive heat; and it is truly afflicting to the zealous florist to be a spectator of the havock occasioned by the intense rays of a noon-day sun. It is frequently then struck flat, and deprived of almost all appearance of life; the leaves will be withered, and the roots, if not actually killed, will be very much impaired.

The Polyanthus, intended to be shewn as a prize-flower, should be carefully lifted from the border the morning previous to the shew, with a ball of earth, and put into a pot of a size suitable to that of the plant, giving it a gentle watering.

It is now necessary to examine nicely the plants and pots early in the morning, to clear them if possible of slugs and snails, which at this time are the greatest enemies of the Polyanthus,

Besides the nightly ravages of the slug and snail, the Polyanthus in the border is exposed to the inroads of another not less formidable enemy.—This is a small and almost imperceptible spider, which preys upon the leaves till they become yellow and spotted. Whenever the plant is found to be thus discoloured, it must be instantly removed from the rest, and soaked for two or three

three hours in a strong infusion of tobacco-water; after which it must be again replanted in a situation still more remote from the place of infection; and, as a preventive to the remaining plants, a sprinkling of quick lime has been often found effectual.

The usual method of cultivating this flower is by offsets, or parting the roots; and if a flower is once obtained that has good properties, it should be planted out to gain its increase: But it is from seedling plants alone that perfection must be expected; and the only way to keep up a stock of these is, by a succession of beds raised by a succession of seeds.

In order to obtain good seed, let some roots of the best sorts be purchased; plant them in a rich shady border, (as before directed) any time in the Autumn or early in the Spring. In warm and dry weather, these roots should be watered every other evening; by which means more of the seed is likely to come to a state of perfection. When the seed-vessel begins to open, the watering should cease; the seed at that time being nearly ripe.—At this period the plants should be every day examined; and such heads as appear quite brown, with their vessels opening, should be immediately gathered, otherwise the best of the seed will be lost.

The seeds being thus carefully collected, should be spread on a paper in a warm room; taking care that they are perfectly dry before they are sown, which should be done in the same manner, and at the same time, as before directed in the culture of the Auricula.

A description of the properties of a fine Polyanthus :

1. The stem ought to be strong, elastic, erect, and of such a height, that the trufs may be above the grafs or leaves of the plant.

2. The foot-stalks should be stiff, and of a proportionable length to the size and quantity of the pips, and not less than seven in number, that the trufs may be close and complete.

3. The pipe, tube, or neck of the petal, should rise above the impalement, be short, and finish fluted in the eye ; the antheræ should cover the neck of the tube :— This is what florists call a *thrum-eye*. When the style perforates, and shews its stigma above the antheræ, this is called a *pin-eye* ; and such a flower is rejected by all modern florists, let its other properties be what they may.

4. The eye should be round, and of a proportionable size, of a bright clear yellow, and distinct from the ground-colour.

5. The ground-colour is best when shaded with a light and dark rich crimson velvet, with one mark or stripe in each division of the petal, bold and clear from the edging down to the eye, and there to terminate in a fine point. The pips should be large and open, quite flat, and as round as they well can be, to preserve their peculiarly beautiful figure, which is circular and indented, being exactly divided into five or six heart-shaped segments ; the edging like a bright shining gold-lace, bold, clear, and distinct, of the same colour of the eye and stripe.

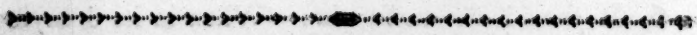
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6. It should *die well*; viz :—When in its decaying state it preserves its colours lively and strong to nearly the last; and of these there is a very great difference.

This last property is by many esteemed valuable; for there cannot be a more melancholy sight, or a better emblem of our own fate, than the last stage of a blow of beautiful flowers of any kind.

The doctrine of the florist and botanist never more disagrees than in the third article;—the florist rejects a pin-eyed Polyanthus as an imperfect, despicable flower; the botanist regards such a flower as the most perfect of its sort :—It is the female organ of generation; and in monopetalous flowers, in its most perfect state, is longer than the stamina.





HYACINTH.

AMONG the Dutch florists the Hyacinth stands in the first place, commanding the admiration of every beholder, by the sweetness and vivacity of its colours, the arrangement and duplicity of the petals, and the elegant disposition of the florets. But the more charming this flower is, the greater nicety is required in its management and cultivation.—A defect in the soil, a bad exposure, the manner of placing the bulb in the earth, and many other causes, may destroy it, by affecting it with the rot ; or at least rob the flower of its beauty, by making it degenerate.

The following are the principal varieties enumerated by botanists :—

Hyacinthus Belgicus ; or Dutch Hyacinth.

Hyacinthus botryoides ; Grape Hyacinth.

Hyacinthus coralloides ; Coral Hyacinth.

Hyacinthus

Hyacinthus flore Boraginis ; Borage-flowered Hyacinth.

Hyacinthus flore oblongo sexpartito ; English Hyacinth.

Hyacinthus muscari ; Musk Hyacinth.

Hyacinthus plumosus ; Feathered Hyacinth.

Hyacinthus stellatus ; Star Hyacinth.

Hyacinthus stellatus Africanus ; seu *Lilio-hyacinthus* ; African Star Hyacinth, or Lilly-Hyacinth.

Hyacinthus tuberosus Indicus ; Indian Tuberose Hyacinth.

Hyacinthus orientalis ; Oriental Hyacinth.

Of the last named species (Oriental, or Double Hyacinth, the only kind attractive in the eye of the English florist) the subsequent account will entirely consist.

These, if they do not owe their birth to Holland, have been, and still are, brought from thence ; where they have either been raised from seed, by the extraordinary pains, diligence, and expence of the Dutch florists ; or else the soil of that country is more peculiarly adapted by nature to give the Hyacinth that enchanting beauty with which it strikes every eye. For it is with flowers as with plants—that soil in which one grows and thrives, is poison to another.

Florists are divided about the choice of fresh or rotten dung ; the decision of this question properly belongs to the naturalists. It is certain that fresh dung is richer than rotten dung ; but the business is to know which

which of the two produces the better effect in culture. Dung is only the substance to which the sulphureous vapours adhere, which fertilise the earth, and supply that vegetative force, which it would not have of itself, or with water alone; from which it may be inferred, that fresh dung, being fatter and less spent, is more susceptible of this sort of vapour, and consequently more fit for the production of most plants; but it is too fat for the Hyacinth, which, not being able to bear that great abundance of sulphureous particles, would be soon suffocated by them.

The following compost is the best yet discovered:— Two sixths parts of sea or river sand; two sixths of fresh rich loamy earth; two sixths of well rotted cow dung; one sixth of tanners' bark, quite rotted and reduced to earth.

All these materials must be thrown into a heap, not more than three feet thick, so that the rays of the sun may have power to penetrate through it, and warm it to the bottom; for which purpose the heap must be laid in a high and open place, exposed to the South. Once a month it ought to be carefully stirred, and the bottom thrown to the top, that all parts of it may participate of the benign influence of the sun and elements; this is so essential, that if the heap be not thus exposed, so far from being advantageous, it would become very detrimental to the flowers.

But this is not enough; the heap ought also to be well wrought and reduced to a very fine mixture, without

out roughness, and the oftener it is stirred the sooner it will be fit for use; this must be continued for six months before the compost be used, taking care not to sift it; a practice with some, though in that case the earth is apt to run into lumps, which would be of dangerous consequence.

The compost, thus prepared, must be taken to the designed place about a month before the roots are planted; for if it be put in later, the earth might settle while the roots are in it, which would lay them too deep.

After a place has been pitched on for planting the flowers, the natural earth must be dug out to the depth of three feet, and the bottom covered with a stratum of cow's-dung, half a foot thick; which must be beaten and trod down, till it be very firm and compact, like a hard crust; that by its closeness it may stop the vapours from rising and penetrating the compost; then the hole is to be filled up with compost four inches above the level of the garden.

The second article necessary to describe is the method of planting the roots.

This should be done in a proper bed, or in any other place the florist chuses; the most curious plant them in raised beds, the proportion of which may be regulated by the number of roots. Thus, if we have roots enow to fill a bed of twenty feet long, and four broad, they may be set in four rows of twenty roots each (about twelve inches asunder); observing in other cases the

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same

same proportion, according to the number of roots. They should be planted in a South aspect, and in the following order : —

R*	B	W	R	B	W	R	B	W
R	B	W	R	B	W	R	B	
W	R	B	W	R	B	W	R	B
W	R	B	W	R	B	W	R	
B	W	R	B	W	R	B	W	R

Having taken the precautions above-mentioned, with regard to digging the cavity of the bed and lining it with dung, the preparation of the compost, the time betwixt the removal of it and the planting the roots, we are next to fix upon the most proper season for putting them into the ground, which should be in October or November; for the Hyacinths would be exposed to several dangerous accidents, in case any other season were chosen; because the defects of the bulbs cannot so well be discovered before that time: And if they were set in September, the flowers would be much

* The letters R B W denote the colour of the flower,—Red, Blue, White.

pinched, when they began to appear above ground, by the cold of the Spring in our Northern climates: Neither is December more eligible, because then the roots would have begun to vegetate before the bulb was put into the ground, which would hurt its growth.

They ought to be planted at the depth of four inches: Not more; because in that case, tho' the bulb would indeed grow strong and large, the flower would be poor and small; nor less, because then the bulbs would blow the flowers extremely well for one single year, but then they would produce a great number of offsets, by which the principal roots would be exhausted and spent.

Another observation is also to be made, that all the sorts do not blow at the same time, some being *early* and others *late* blowers; if therefore the first be set four inches deep, and the latter three and a half, the pleasure of seeing the flowers blow together more equally, may be expected.

In the gloomy season of Winter, when Nature, despoiled of her force and beauty, seems to be spent and motionless, and the flowers are in a kind of lethargic state, no more can be done than to cover the earth to prevent any mischief which frosts might occasion.

When the severity of the Winter is over, the cover ought to be taken off before the rising plant has penetrated into it; for then the leaves would contract a pale disagreeable yellow colour, which they would not lose all the Summer.

It is however necessary to be observed, that the beginning of Spring (especially in climates like that of England) is subject to great uncertainty. The months of March and April are infested with night frosts, great winds, hail, &c. against which the florist ought carefully to guard his flowers: And for that purpose, those that have set their bulbs in a bed, should make use of mats or pease-straw, which should rest upon supporters about a foot from the ground.

Winter being past, and settled weather introduced with the delightful season of the Spring, the Hyacinth begins to display its beauties. This ornament of the Spring then expands its florets to afford every one the pleasure of admiring its gayest colours. Happy would it be if the winds could be affected with its charms! But these, boisterous by nature, and insensible to its elegance, would soon break down the weak succulent stalk, labouring under a heavy load of flowers, unless it were properly supported. Florists therefore make this their especial care, some in one way, some in another; but their methods are so different, that it would be tedious to repeat them all. The best way is to make use of straight sticks, two feet long, and about the thickness of a goose-quill. These are to be stuck in the earth to the depth of four or five inches, as near the plant as possible, without touching the bulb; then the stalk is to be tied to the stick with a small green worsted or mat, above the lowest bell; but so loosely, that the stalk of the flower may have liberty to play in the noose, and
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the bandage may be raised as the plant grows up. If the stalk grows too tall, it may be necessary to apply a second bandage nearer the top.

There is also another inconvenience to be guarded against.—The red and deep blue Hyacinths cannot bear the force of the sun's rays, which would soon spoil their colour. Therefore the curious florist should use small hand-glasses, lined with chalk or whitening, but which are only to be employed during the scorching heat of the sun. They are to be placed over each of the red and blue flowers, and also the white and blue that blow before the rest, to defend them from the heat, otherwise the early flowers would be faded before the latter were in full blow.

When the flowers are almost in full blow, these hand-glasses are to be taken away, and their place supplied by a frame with glass lights, suitable to the size of the bed, which will screen the whole both from sun and rain. That the increase of the bulbs may not be prevented (which would be the consequence of keeping the bed too long covered) the frame must be taken away as soon as the greatest part of the flowers have begun to fade, which will be in about three or four weeks.

When the season of flowering is over, the next care to be taken for the benefit of the Hyacinths is the taking up the roots.

This should be done as soon as the leaves begin to wither, that is, when their points turn yellow; because they have then come to full perfection.

As soon as the roots are taken up, a little heap should be made with the earth in which they grew, which must be about half a foot above the surface of the ground, roundish at the top, and sloping on both sides, to cast off the water; for nothing is more pernicious to the Hyacinth than stagnant water.

This little heap being thus prepared, the bulbs are to be laid in it beside each other, before the earth about them be dry, when they are taken up; for the first bad effect arises from this dryness: But care must be taken that the bottom of the bulb be placed downwards, so that the top where the stem was broken off, and which is very watery, may be dried by the heat of the sun, otherwise the bulb would rot.

The bulbs being placed in the manner above-mentioned, they are then to be covered with earth to the depth of one or two inches.—They should also be protected from heavy rains.

The bulbs are to remain three weeks in the heap, from which they are to be taken, in serene and fair weather, and laid on a board in the sun for an hour; after which they are to be cleared from the earth and offsets about them. The best place that can be chosen for this purpose, is an airy room, in which they must be laid on a table where the sun can never come, which would be a great detriment to the Hyacinths; and the windows ought to be set open in fair weather to dry the bulbs, which are still full of moisture.

Bulbs that are received from abroad, ought, as soon

as they come to hand, to be taken out, stript of the paper bags, and laid in a well-aired place; nor would it be amiss to expose them to the sun for a few days, that they may be better freed from any dust or mouldiness contracted in the carriage.

The symptoms of most diseases incident to the Hyacinth may be discovered by examining the bulb; some shewing themselves in the stem, others in the base or part next the fibres, and others again in the leaves.

The disease indicated by the yellow point, or the reddish or brown semicircle, is discovered and cured as the former. But the bulb that wears these marks is to be reckoned in great danger of dying, for which there is no remedy but the knife, by cutting away the faulty part, till it be entirely extirpated.

The Ring-sickness is the worst and most dangerous of all others. It is an infection communicated to the leaves by the pernicious vapours received from the earth by the root. The disease first appears in the leaves, from which the corrupted juices sink by degrees into the bulb; and the only way to prevent this mischief in the Hyacinth, is to take up the roots as soon as the leaves begin to fade; for then, as the distemper may not yet have reached the bulb, it may be prevented by taking away the leaves.

Such curious florists as have set their bulbs in beds, and, for the sake of regularity, would have nothing appear to be wanting in the rows they have laid out, must provide pots a foot deep and half a foot diameter, in
which

which they should plant some spare roots of different colours, at the same time the others are set ; which are to be kept in a separate part of the garden, to be ready to substitute in the place of any that may be thought proper to be taken up.

The following are the properties of a fine double Hyacinth :—Its stalk should be strong, upright, and well proportioned ; neither too long nor too short ; because when too long, it is generally weak, and cannot sustain the weight of the florets or bells ; and if too short, the flowers will be hid among the leaves, which would be a very great defect : The stem should also be covered with florets in a pyramidal form, with the uppermost bell perfectly erect.

The florets ought to be very numerous, and fixed to the stem by short pedicles, which should also be large, thick, well curved, and longer at the base of the spike than above, the better to represent a pyramid ; they ought all to stand horizontally, and not hang down, which would be a great imperfection ; their colour should be bright, clear, transparent, and not confused.

The florets should be large, well filled, bell-shaped, and their brims well expanded. The pedicles, by which they are annexed to the main stalk, should be well proportioned. It often happens that the bells hang down, and do not stand horizontally ; but a Hyacinth with this defect is not to be rejected, as it is impossible for such slender pedicles to sustain the weight of the bells fixed to them without bending ; the larger
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the florets are, the more they bow downwards, and there is scarcely any flower exempt from it.

Florists are not yet agreed from what sorts the finest Hyacinths have been raised; but as to those the seed should be saved from, it is allowed by all that the semi-double flowers are to be preferred; because the double produce very little seed, and the new flowers raised from it are also smaller. Among the semi-double flowers, the preference is to be given to the *Maiden Hyacinths*, or such as have not flowered above once or twice since they were raised from seed; because the younger the roots are, they are so much the more vigorous, and have more force to bring the seed to perfection.

The seed not being yet ripe when the roots are to be taken up, the stalks with the seed vessels are to be cut off a little above the ground; and to ripen the seed, these stalks must be planted in the earth to the depth of three or four inches, and left thus for a fortnight; at the end of which time they are to be examined, to see whether the seed vessels are beginning to open, and the seed be turned black, which is a proof of its ripeness; in that case, the stalks are to be taken up very carefully, for fear of spilling the seed, and the whole laid upon a flat dish, or wooden platter. The seed vessels are then to be separated from the stalk, and, with the seeds, laid upon another plate, and then the stalks are thrown away as useless. After this the last plate is to be exposed in a window where the sun lights, that the seed may dry. It will not be amiss to open the window in fair weather

weather, and when the sun shines; but it must be shut when it rains, lest the seed should contract any dampness. After some weeks, when the seed is quite dry, it must be taken out of the pods or cases, and, when cleaned, put into a paper bag, which must be kept in a dry place, because any moisture would make the seed mould, and be very apt to spoil it.

In the month of September or October, (which is the proper time for sowing) the earth being first well prepared, the seed may be sown. If the quantity of seed be small, let it be sown in pots, which should be sunk in the ground up to the brim, so that the surface of the compost in the pots may be on a level with the earth in which they are sunk, and that the compost may not become too dry and unfit for vegetation.

At the approach of Winter, the earth must be covered with tanners' bark, two inches thick, to defend the seed from any injury it might receive by the cold; but in the Spring this covering must be removed, as the seed will then be coming up, and appear above ground with very small leaves. In Summer, the pots must be carefully cleared from weeds, that the young bulbs may not be hurt by them; but the roots need not be taken up this year, because they are too small. The succeeding Winter and Spring require the same precautions as the former; and the second year the bulbs will send forth somewhat longer leaves. About the end of June the bulbs are to be taken up, because, if it be delayed till the leaves die, they will be difficult to find, and also very liable to diseases.

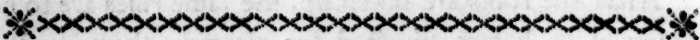
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After the roots are taken up, the same rules are to be observed as before directed for cleaning them, curing such as are sick, and preparing the earth in which they are to be set. They must be planted in September, in well-prepared compost, and from that time treated as the other bulbs.

When they flower, which may be in four, five, or six years, they should be carefully examined to see if there be any fine single flowers among them of bright colours, and a stick or mark put down beside these bulbs to distinguish them from the rest.



TULIP.



T U L I P.

THIS flower is probably a native of Turkey, of which the name is a proof, being derived from the Turkish word *Tulpent*, which signifies a cap or turban.—Gefner, in his Appendix to Cordus's History, says, that he saw the first Tulip in the year 1559, in the garden of Mr Hewarts, at Augsburg, which had been raised from seed brought from Constantinople.—But though it be originally from that country, Holland is the great magazine of the finest and most curious Tulips, which are raised there by the diligence of the florists of the Low-Countries.

The *Spring Tulips*, which blow at the same time with the Hyacinths, were formerly in so great reputation, that the florists placed their highest ambition in
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the possession of them. This passion rose to that extravagance from the year 1634 to 1637, that single roots were sold from 2000 to 5500 guilders; but the madness was at last checked by the interposition of the states of Holland and West-Friesland, who regulated the price of flowers by a law, dated 27 April, 1637.— Since that time the late blowers have gained the preference, and the Spring Tulips are no longer in such high estimation.

The *late-expectant Tulips* are so called, from the expectation we have of raising fine new flowers from them; they are also called, *Tulips of one colour*, or *whole-blowers*. In this country they are called *breeding Tulips*, because from them the most admired new flowers are produced. In Germany they have the name of *mother Tulips*, [*Butter Tulpen*] because we have nothing that is fine in the Tulip kind, but what owes its birth to them. They are not very beautiful in themselves, but are very valuable for the reasons above-mentioned; and a true florist should never be without a good number of them in his garden, from which he may breed very fine Tulips; a thing he must never hope to accomplish but by their means; for these answer the same purpose in raising curious new Tulips, as the seed does in Hyacinths.

There are two sorts of them, the *bizarres*, which have a *yellow bottom*; and the *violettes*, of a *rose* or *cherry* colour, with a *white bottom*.

The former are almost all of a brown, copper, or
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dark-fawn colour, having at the bottom of the cup, or about that part to which the leaves of the flower are fixed, a small round spot, which is either yellowish, or black mixed with a little yellow. When these Tulips break, they always become bizarres with a yellow bottom.

The latter, or *violettes*, are of a purple violet, pale violet, gridelin, cherry crimson, or red; the spot at the bottom being either a clear white, or blackish grey mixed with a little white. Their productions become Tulips with a white bottom (*Bybloemen*) marked with different colours; this alteration is accomplished by setting the bulbs of the breeders in a very poor soil; and this practice is built on a well-grounded hypothesis, which has ever prevailed, and is still maintained, that the breaking of this flower is occasioned by the weakening of its natural strength; and no cause is better adapted to produce this effect, than the defect of nutriment.

The *variegated late-blowers* are the Tulips that particularly deserve notice. These are beyond dispute the most diversified, beautiful, and perfect of them all.—Of these there is an almost infinite number of sorts, which are reduced by florists to five classes, viz.

1. Tulips with a white bottom, striped with brown, called *Baguette primo*.
2. Such as have a white bottom, striped with brown, called *Baguette rigaut*.
3. Those with a white bottom, striped with violet, and blackish brown, called *Bybloemen*.

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4. Those with a white bottom, striped with rose-colour, vermillion, and ruby, called *Incomparable Verports*.

5. Such as have a yellow bottom, striped with different colours, called *Bizarres*.

The cultivation of the Tulip does not require so much nicety as that of the Hyacinth. It is very little affected either by cold or heat, and grows very well in a fat or loamy earth, provided it be well prepared, and not dug out of deep pits. Neither is a light, bituminous or sulphureous earth, less agreeable to it, if it be well wrought, and mixed with cow dung that is quite rotted. Nor is a sandy earth contrary to it, if it be not too fat; though the preference ought to be given to a loamy and sulphureous earth for the culture of the Tulip. But the mud formed in stagnant waters, and the earth taken out of pits, vaults and ponds, as recommended by Dr HILL, are quite improper, and will assuredly kill them.

The method most approved, and which in this country has been attended with the most general success, is the following:—The bed should be in an open part of the garden, and the earth taken out to the depth of twenty inches, covering the bottom with fresh loamy earth to the thickness of eight inches; in this lay a stratum of rotted cow's dung, three or four inches thick, filling up the rest of the bed with the above-described earth, mixt with a little sea or river sand.—Care should be taken not to set them more than two years together

in the same earth; this would make the root decay, and the flower would never be fine. A florist ought to pay great attention to this, and be sure that his earth be well mixed, and frequently turned over before the bulbs are set.

The bed being thus prepared, the roots are to be planted in November, about four inches deep.—Some curious florists peel the brown skin off the bulb to make it shoot more freely; but this requires great caution, as the least matter may bruise the bulb, and the least bruise may be of great detriment to the Tulip.

Those sorts that have the tallest stems should be planted in the middle row, those of a less height in the next rows, and the shortest at the sides; so that the flowers, by this arrangement, may form a semi-circle, which will have a good effect upon the eye. Each bulb should also be surrounded with sand when it is put into the ground, by which means the skins will become finer and better.

Tulips being in no danger from cold, frost, rain, or the rigours of Winter, it would answer no end to cover them during that season; but when they begin to appear above ground, the shoots being young, bad weather and frosts may much injure the tender leaves, and thereby do great damage to the flowers: They ought therefore to be carefully sheltered in the Spring, after the same manner, and under the like circumstances, as have been before directed in the management of Hyacinths. If this be neglected, the stems and leaves will
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suffer by it; nor will the mischief end there, but be extended to the flowers, which will be less beautiful, and also to the bulbs, which will be weakened, and very much affected by the loss of the leaves.

When the stems grow up and the heads begin to increase in size, they ought to be supported; otherwise the wind may break them down, and the florist would be disappointed of his show of flowers. For this purpose he ought to prepare sticks two or three feet long, and of a proportionable thickness. As they advance in height, the stems should be tied to those sticks with green worsted, which will give the bed a pleasing regularity, and show the flowers to great advantage.

When the blossoms begin to open, a frame or covering should be erected over the bed, to shelter them from the intense rays of the sun, from high winds, and heavy rains. Thin canvases, which, from the openness of its texture, will admit a small degree both of light and air, has been found by experience to form the best awning for a bed of Tulips: This covering, in order to admit a free action of the air, should extend to within a foot or two of the ground on each side of the frame; but, in excessive windy weather, mats should be nailed to the frame on that quarter from whence the wind blows.

After the flowers are faded, the stalks are to be cut off six inches above the leaves, or at least the head or seed vessel is to be taken away, otherwise the roots would be less, as they would lose the benefit of the juices, which are expended upon the seed-vessel to form and bring the seed to perfection.

The time for taking up the roots is usually when the leaves are withered ; and this is to be done with all possible care, because the bulb, being then very tender, may be easily bruised, and by that means destroyed.

When the bulbs are taken up they ought to be laid in an airy place, but not exposed to the sun, which would be very pernicious to them. Three or four weeks after, when they are well dried, they should be freed from the outward skins that are the relics of the old bulb ; after which they may be laid again in the same place, and remain there till the time of planting.

These are the rules to be followed in the management of Tulips, which are infinitely more easy than those concerning the Hyacinth ; and by the observance of which, every florist may flatter himself with success.

The time necessary to raise Tulips by seed is very long and discouraging to the practice ; eight, ten, and in many cases even twenty years, have been known to elapse before a Tulip, by this process, becomes finely variegated, or worthy of estimation in the opinion of skilful and experienced florists. Those persons, however, who wish to make a trial by seed, should be careful to take it from those Tulips that are known to have the best properties ; and, to have the seed in perfection, care must be taken not to cover those flowers which are fixed upon for that purpose ; for if shaded, the seed will be imperfect.

The Tulips so chosen must be suffered to stand in the
ground

ground till the seed-vessel begins to open, and shews the seed of a brown colour; they must then be cut, and laid in a dry place, letting the seed remain in the seed-vessel till the month of November. It must then be taken out, and sown at the depth of an inch in pots filled with well-prepared earth, which must be placed in the shade till the month of March.—They must then be exposed to the open air, and kept moderately moist by gentle waterings, taking care that they are well preserved from heavy rains. Soon after this they will make their appearance, and are to remain in that situation till July.—The pots are then to be removed to a more shady place, and kept perfectly dry; for this purpose a hot-bed frame is the most adviseable.—This treatment must be continued for another year; after which, in July following, the roots may be taken out of the pots, and treated in the same manner as other Tulips.

The following are the properties of a fine variegated late Tulip:—The stem should be strong, elastic, and erect, and about thirty inches above the surface of the bed.

The flower should be large, and composed of six petals: These should proceed a little horizontally at first, and then turn upwards, forming almost a perfect cup, with a round bottom, widest at the top.

The three exterior petals should be rather larger than the three interior ones, and broader at their base: All the petals should have perfectly entire edges, free from notch or ferrature; the top of each should be broad and
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well rounded; the ground-colour of the flower, at the bottom of the cup, should be clear white, or yellow; and the various rich-coloured stripes, which are the principal ornament of a fine Tulip, should be regular, bold, and distinct on the margin, and terminate in fine broken points, elegantly feathered or pencilled.

The centre of each leaf, or petal, should contain one or more bold blotches, or stripes, intermixed with small portions of the original or breeder colour, abruptly broken into many irregular obtuse points. Some florists are of opinion that the central stripes, or blotches, do not contribute to the beauty and elegance of the Tulip, unless confined to a narrow stripe, exactly down the centre, and that they should be perfectly free from any remains of the original or breeder colour: It is certain that such appear very beautiful and delicate, especially when they have a regular narrow feathering at the edge; but the greatest connoisseurs in this flower unanimously agree, that it denotes superior merit, when the Tulip abounds with rich colouring, distributed in a distinct and regular manner throughout the flower, except in the bottom of the cup, which, it cannot be disputed, should be a clear, bright white or yellow, free from stain or tinge, in order to constitute a perfect flower.

POLYANTHUS.

POLYANTHUS-NARCISSUS.

THIS flower is very beautiful, the colours pleasing, and of which there is a great variety.—

Some are yellow, with a golden or orange-coloured cup in the middle; others white, with lemon-coloured or golden cups; some sulphur-coloured, pale yellow, and gold-coloured; others again all white; each kind producing many flowers on one stem: These are imported from Holland, where all the varieties are raised by the industry of the Dutch florists.

This flower is very easy to manage, and only requires particular care to secure it from frost; it ought therefore to be planted in October, four inches deep. The earth they are set in ought to be fine and well wrought, but mixed with very little dung, this plant having a
great

46 POLYANTHUS-NARCISSUS.

great aversion to a fat and wet soil. During the Winter, the bed must be covered with tanners' bark, three inches thick, to preserve them from frost; no other care is required till the Spring, when, the leaves appearing, -the tan must be carefully taken off. To preserve the bloom, the bed should be shaded from rains and the heat of the sun.

The roots may remain three years in the ground; if longer, they will flower small.—The proper time for lifting the roots is when the leaves turn yellow; carefully separating their offsets, and preserving them in the same manner as directed for Hyacinths.

Those who wish to propagate these flowers from seed, should be careful in saving it from such as have beautiful cups to their flowers, and many flowers upon a stalk. The management required is the same as that of the Tulip.



RANUNCULUS.



R A N U N C U L U S.

THOSE who are most curious in flowers set a high value on the Ranunculus; and not without reason, it being deservedly an object of admiration, on account of the great number of beauties it possesses, which give it a fair title to be reckoned the master-piece of Nature, in the season when it blows.—The wonderful elegance of its form, the dazzling brightness and richness of its colour, the variety and beautiful mixture of its tints, and the curious disposition of its petals, cannot be matched by any flower of the season.

It is the general opinion that this flower is a native of Turkey, Arabia, and Persia, from whence it has been imported into Europe. The name is a diminutive word,

word, derived from the latin *rana* (frog) because, like that animal, it delights in very moist places. The flower is composed of many petals, placed circularly, and expanding in the form of a rose; the cup for the most part has many leaves; in the midst of the flower rises the stile, which afterwards becomes a round, oval, or spiked fruit; the seeds are numerous, and fixed to the axis of the stile.

The Oriental Ranunculus is the sort which the curious have long cultivated as the principal ornament of their gardens, and which are reduced under three heads or classes.

1. The *old Turkey* Ranunculus.
2. The *semi-double* Ranunculus.
3. The *new*, or finest sort of Ranunculus.

The *old Turkey* Ranunculus was formerly in great request, but has sunk lately in the florists' esteem since they have been possessed of the *new*. Yet it is still cultivated in the finest flower-gardens, and makes one of their prettiest ornaments; at least it deserves a place in every garden, as being easy to manage, and requiring little or no care.

The *semi-double* are cultivated by florists for their seed, and from these the endless varieties of the finest sorts are obtained.

The most proper soil for the Ranunculus is that which is rich, fresh, and loamy, mixt with a small quantity

tity of well-rotted tanner's bark, and coarse river sand. These articles, well blended, and frequently turned over, will make the best compost yet discovered. Having fixed upon a convenient place for a bed, let the natural earth be dug out about a foot and an half in depth, filling it up again within half a foot with the above-described compost. On this compost lay a stratum of rotted cow's-dung, three inches thick, and not less than two years old, filling up the remainder of the bed with compost; be careful to keep the surface of the bed even and flat, to preserve the moisture as much as possible, this plant, as observed before, delighting in humidity. The roots should be planted in rows at the distance of four inches from each other. The best and easiest method of doing this is to make a drill, the length of the bed, and about two inches deep; in this drill sprinkle a little coarse river-sand, and let the roots be placed the crown upwards, about four inches asunder for good sizable roots, and three inches for smaller. The roots being planted, the drill should be carefully filled up with the same earth that was taken out, covering them to the depth of two inches; for if the roots be planted shallower or deeper, a second and wiry root will be formed, by which the plant becomes so weakened that it may probably never bloom again.

The fine kinds of *Ranunculus* roots, being delicate, and of course exposed to injury by frosts, should be sheltered by a covering of pease-straw, which must be taken off in fair and open weather. This should be

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done

done before the roots begin to vegetate, they being then more liable to become mouldy than at any other time.

In the Spring, when the plants make their appearance above ground, and the rows are regular and discernible, it is an excellent method, to prevent the bad effects of the dry and pining winds which often prevail at this season, to lay a quantity of moss between the rows, which will keep the surface of the soil moderately cool and moist. The moss should be removed when the foliage of the plants is sufficiently grown to afford for themselves a shade without further assistance.

In drougthy weather they should be frequently watered between the rows, avoiding, as much as possible, watering the plants themselves; for should the sun's rays fall intensely upon them before the moisture be sufficiently exhaled, the grafs will put on a yellow and deadly appearance, and the roots will be small.

The roots planted in the Spring will be in blow by the middle of June, at which time their flowers should be protected, by covering, from the heat of the sun, from wind, and from rain: For this purpose nothing can be a better covering than that before recommended in the account of the Tulip.

Soon after the time of blooming, the leaves will begin to decay; the roots should then be taken up, and the stems cut off; and the former ought to be spread in an airy room, in a shady situation. When the roots are well dried they should be carefully put into boxes or
paper

paper bags, in which they may remain till the time of planting.

Those curious florists who intend to raise Ranunculuses from seed, should be careful in selecting it from such semi-double flowers as have the strongest stems and brightest colours. The seed, when gathered, should be kept as dry as possible till the month of March, that being the most proper time for sowing. It should be sown in pots or boxes, filled with rich loamy earth, the surface of which should be made smooth and even, and the seed regularly sown upon it. Some fine light earth should then be sprinkled upon it, so as just to cover the seed, which must be kept moderately moist, and covered with bell or hand-glasses. When the plants begin to appear, the surface of the earth should be stirred with a knitting-needle, or any other slight instrument, which, by admitting the air, will open an easier passage to the rising Ranunculuses. They must then be removed to a shady part of the garden, and uncovered in fine weather, to render them strong and hardy. When the leaves are dead, the roots, being small, should be carefully taken up, preserved, and planted in the same manner as before directed.

The safest time for planting Ranunculuses is in the latter end of February or beginning of March; they may also be planted in November, to have the pleasure of seeing them flower at the same time the Tulips are in full blow. They will begin to shew themselves a few weeks after they are in the ground; but then very

great care must be taken to preserve them from frost, hail, and the heavy winter showers; for these three things are very destructive to them. Frost kills the leaves, hail is also baneful, and Winter rains make them mould; therefore, when frost is expected, care must be taken to prevent the rain from coming at them; for if a frost should come on when the leaves are wet, there is an end of them. But when the earth is dry, and the frost has continued for some weeks, the covers ought to be taken off when the weather is fair and the sun shines, otherwise the leaves might mould, which would injure the roots very much. When it freezes very intensely, a thick covering of pease-straw should be thrown over them. In March, they should only be covered during the night, and in great showers of hail.

These precautions are to be taken with regard to Ranunculuses planted in November; but no florist should chuse this season of the year, because of the great trouble and care that it necessarily requires to preserve them; though by this care the roots will be better fed and grow larger and stronger, and the flowers will be fuller and more beautiful.

A good Ranunculus will be distinguished by the following properties:

1. The stalk or stem straight, erect, strong, well proportioned, and surmounted by a flower well disposed, and standing evenly.

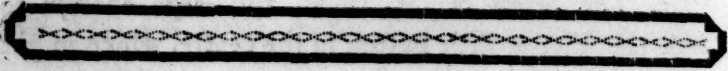
2. The flower large, well turned, full like a rose, and the petals cupping, or bending into a semi-circle.

3. The

3. The petals bright, thick, and large enough to hide the stile, or little button in the centre, which might offend the eye.

4. The colours with which the petals are distinguished should be disposed in even, straight, and distinct lines, without mixing or running into each other. The particular colours that most set off a flower are, an agreeable mixture of gold and ruby, or brown; stripes of violet, or Tyrian purple; or white, edged with vermillion, blue, or black. If all these properties meet in a Ranunculus, it may then be pronounced a perfect flower; but such perfection is not to be expected; and a Ranunculus that has two or three of these properties may be reckoned a fine flower, and worthy the esteem of the curious.





A N E M O N E.

THE place of its origin is uncertain: Some pretend it was brought from America, others the contrary.—In Holland this beautiful flower is cultivated with great application. The name is derived from a Greek word signifying *wind*, from whence it is called the Wind-flower, being easily moved by it, and cannot bear its blasts. Pliny and others suppose it not to open except the wind blows; but daily experience teaches the contrary, for it expands and opens widest when there is the least wind and most sun. They are divided into two species, the single and double; the first is only kept with florists for the sake of seed, and requires no care but to be planted in a good common bed,

bed, two inches deep, in October. The double are almost of all colours, and well deserve the attention of the curious, being hardier than the *Ranunculus*. They may be planted fourteen days after the Tulip, and will bloom at the same time. If they are not planted then, it will be better to defer doing it until the beginning of March. The roots planted in October or early in November, will be greatly improved in strength; the blow will be generally larger and fairer, and make greater increase than those set in the Spring; but very great care is required in Autumn planting, to protect them from wet and hard frosts. The most convenient method of doing this is, to hoop the bed, and, in bad weather, to cover them with mats, taking them off as soon as the season allows.

The Anemone is more liable to be destroyed by wet in Winter than any other plant: And such roots as are set about Christmas, as some authors advise, there would be great difficulty in saving; the earth at that season not being sufficiently heated by the beams of the sun, would want vegetative power to make the roots strike; and if suffered to get much wet, it may prove destructive to the greatest part of them. There is not any compost yet found better adapted for the Anemone than that recommended for the *Ranunculus*, in which they may be planted in every respect the same. The roots planted in March will be in bloom when the sun has great power: To continue their blow, the bed ought to be covered, (in the same manner as directed for *Ranunculuses*)

nunculuses) and they will sometimes bloom as fair as those set in Autumn.

The most proper time for taking up the roots is when the leaves and flower stalks are entirely dry and withered; if this be neglected, they will strike out fresh fibres, especially if they are exposed to rain; therefore the time of lifting must be particularly attended to. When taken up, spread them in a dry airy room, and shade them from the sun. When perfectly dry, they are cured; then clear away the soil and fibres, and put them into dry paper bags, where they may remain until the season for planting.

In raising Anemonies from seed, it should be the care of the florist to save it from such semi-double flowers as have strong tall stems, and bright shining colours. The seed being downy and very light, the least puff of wind will carry it away; therefore care should be taken to examine the seed closely, and gather it as it opens. It is to be sown at the same time, and treated in the same manner, as directed for the *Ranunculus*. It is rather difficult to sow the seed of Anemonies regularly, being of so volatile a nature. The best method is to rub the seeds well between the hands with a little dry sand, in order to make them separate better; if this is not attended to, the seed will stick together in lumps, and greatly obstruct the young plants in their growth.

The following are the properties of a fine double Anemone:

The stem should be strong, elastic, and erect, not less than nine inches high.

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The blossom, or corolla, should be at least two inches and a half in diameter, consisting of an exterior row of large substantial well-rounded petals or guard leaves, at first horizontally extended, and then turning a little upwards, so as to form a broad shallow cup, the interior part of which should contain a great number of long small petals, imbricating each other, and rather reverting from the centre of the blossom; there are a great number of small slender stamens, intermixed with these petals, but they are short, and not easily discernible.

The colours should be clear and distinct when diversified in the same flower, or brilliant and striking if it consists only of one colour, as blue, crimson, or scarlet, &c.; in which case, the bottom of the broad exterior petals is generally white; but the beauty and contrast are considerably increased when both the exterior and interior petals are regularly marked with alternate blue and white, or pink and white, &c. stripes, which in the broad petals should not extend quite to the margin.



PINK.

P I N K.

THIS flower, according to Linnæus, is a native of the more northerly parts of Europe; but the improved varieties of what are commonly called the Pheasant's Eye have now the preference in this and other countries. Like the Auricula, Polyanthus, and Carnation, it owes its present improved state to the attention and perseverance of the English florist. That rare and elegant ornament of the Pink called *Lacing* is of very recent date, and first made its appearance on a flower called Major's Lady Stoverdale, raised from seed in the southern parts of England. This beautiful decoration is formed by a continuation of the colour of the eye round the white or broad part of the petal, which gives the whole flower a most charming appearance.

The

The following is the most proper compost for this flower:—Three-fourths of strong, fresh, loamy soil; one-eighth of well rotted cow's-dung; one-sixth of sea or river sand.—Let these be laid in a heap, well mixed, and frequently turned over. This compost should be well incorporated in Autumn, and in the ensuing Spring it will be fit for use.

The earth of the beds intended for planting should be taken out eighteen inches deep, and filled up two or three inches above the surface of the walk, making the bed perfectly level.

The best time for planting Pinks is the latter end of March, selecting for this purpose the strongest plants, and placing them in the bed about ten inches asunder. Keep the bed free from weeds; and whenever the compost binds or turns hard, the surface should be gently stirred about an inch deep. The oftener this business is performed, the healthier and stronger the plants will be.

Pinks planted in beds will always thrive better than those planted in pots; but every florist should have an assortment of his best kinds planted in pots, by which means the bloom may be hastened or delayed a week or ten days, by removing the pots into a sunny or shady situation.

Another advantage attends the practice of planting in pots; it is a surer and easier way of obtaining increase by layers, which will be sooner rooted, and make stronger plants.

When

When the flower-stems are grown sufficiently long, they should be supported with small sticks about two feet long, tying the stems to the sticks with small slips of bafs-mat.

To strengthen the bloom of the Pink, a strong plant should be suffered to blow no more than a dozen blossoms, and a weak one not more than four or five; the lateral shoots and pods should be taken away, their flowers being always small, and rob the others of their necessary nourishment.

Healthy plants, not too large, and having a good leading stem or two in the middle, will be very strong, and their blossoms large and beautiful—Those pods that are very double are liable to bursting; to prevent this as much as possible, tie the pod round a little below the middle with a piece of bafs-mat, in a single knot. When the pod begins to open on one side, the other corners should also be opened with a small pen-knife downwards to the tying of the mat; by which means the petals will be regular on every side, and the circular form of the flower will be neatly preserved.

It will contribute greatly to the effect produced by a bloom of Pinks, to place circular pieces of cards or strong paper, of a size equal to that of the blossom, with a hole in the middle, upon the pods. These should be placed close under the lowest petals, by which they will be well supported, and kept in a regular form.

When the flowers are nearly in bloom, they must be
protected

protected from intense sun and heavy rain, by a covering like that recommended for the Tulip.

Pinks in beds and pots require frequent watering; in doing which, caution should be used to keep the water from the blossoms, and to apply it with a spout-pan, (such as is commonly used for the Auricula) only between the plants.

The surest way of propagating Pinks is by layers, though the method now most commonly in use is by pipings;—both of which practices, in every respect, are fully explained in the subsequent account of the culture of the Carnation.

To raise Pinks from seed, those plants have been found the most productive that have long pods, and are thin of petals. Those of this description, which are flowers of properties, should be fixed upon for that purpose: They should be covered as little as possible, except in wet weather; for if kept too long shaded, the seed-vessels will prove abortive, and the fructifying power will be entirely destroyed. The treatment by seed is in all respects like that of the Carnation.

A description of the properties of a fine double Pink:—The stem should be strong, elastic, and erect, and not less than twelve inches high.

The calyx rather smaller and shorter, but nearly similar in form and proportion to that of a Carnation, as well as the formation of the flower, which should not be less than two inches and a half in diameter.

The petals should be large, broad, and substantial,

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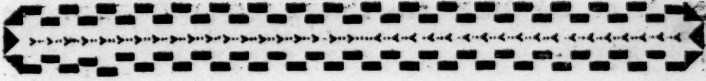
and have very fine fringed or serrated edges, free from large coarse deep notches or indentures; in short, they approach nearest to perfection when the fringe on the edge is so fine as scarcely to be discernible: But it would be considered a very desirable object to obtain them perfectly rose-leaved, *i. e.* without any fringe at all.

The broadest part of the lamina, or broad end of the petals, should be perfectly white and distinct from the eye, unless it be ornamented by a continuation of the colour of the eye round it*, bold, clean, and distinct, leaving a considerable proportion of white in the centre, perfectly free from any tinge or spot.

The eye should consist of a bright or dark rich crimson, or purple, resembling velvet; but the nearer it approaches to black, the more it is esteemed: Its proportion should be about equal to that of the white, that it may neither appear too large nor too small.

* When the corolla consists of petals of this description, it is denominated a Laced Pink.

CARNATION.



CARNATION.

THIS charming plant is supposed to be a native of Italy; tho' the single clove Gilliflower is found growing wild on the walls of Rochester-Castle — Whether it is a native of this country or not, is undetermined; however the great number of sorts of which our present collection is composed, are varieties only of one species, and are originally from the single Carnation, or clove Gilliflower. It is from the seeds of this plant that double flowers of different colours have been produced, and these again improved by culture, which is the only method that a variety of any species of flowers can possibly be obtained.

The Carnation is, by florists, reduced to three classes,

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viz:—FLAKES, BIZARRES, and PIQUETTES; the petals of the latter are always indented, and called pink-leaved.

FLAKES.—The surface of their petals is adorned with two colours only, and these are large and full stripes running through the whole petal.

BIZARRES.—Their variegation is irregular, having large or small stripes, composed of three or four different colours.

PIQUETTES.—These are very numerous, and at present in great esteem. They have different grounds, and are prettily spotted with various colours, which are often laid on in such a way, that the whole flower appears as if dusted with them, which produces a beautiful effect.

The compost for Carnations at present used, and most recommended, is, one-half of strong fresh loamy earth; one-sixth of rotted hot-bed manure; and one-sixth of river-sand. These must, in Autumn, be laid together in a heap, three feet thick, in an open situation, frequently turning it over until it be well mixed; if this is properly attended to, the compost will be fit for use the ensuing Spring. That intended for pots should be put through a small screen or riddle, that stones or any other lumpy substance may be cleared from it. The proper time for potting Carnations is in March; if the weather at this time should prove unfavourable, advantage must be taken of the very first opportunity that offers.

In

In potting, care must be taken to dress off all decayed leaves, and to shorten the withered ends of others; then place the plant exactly in the centre of the pot, the size of which should be from ten to twelve inches diameter; if the plants have been wintered in a frame or covering, in halfpenny pots; when turned out of these pots, let the whole ball of earth remain about them, taking away the surface of the old earth half an inch round the plant, and filling up the pot with fresh compost.

Never plant a Carnation layer, either in beds or pots, deeper than its lowest leaves; and after planting, always give them a gentle watering to settle the earth about the roots. Place the pots in the most convenient part of the garden, and cover the plants with hand-glasses or small pots during the night-time, to prevent the bad effects of dry withering winds, heavy rains, and hard frost, which frequently happen at that season. Be careful to take off the covering every fine day; this must be continued until the plants have struck root, and are well hardened. They will then be fit for entire exposure, and the pots and beds should be watered as may be found necessary.

As the flower-stems advance in height, they must be supported with sticks, five feet long, made for that purpose, forcing the thickest end into the earth close by one side of the plant, to which the stems must be loosely tied with small pieces of bass-mat; this tying is to be continued until the stem has arrived at its full height.

The plants at this time should be carefully examined; the stems being easily broken by the wind, if not supported in this manner.

Carnations are very subject to be infested by a small green-winged insect, which appears generally about the flower-pod; these insects must be destroyed, for which purpose some recommend an infusion of tobacco-leaves, or Scotch snuff dusted on the parts infested; but the easiest and best method to do it effectually is with the fingers, or by cutting a quill into the form of a pen, and carefully introducing it between the leaves. This is a certain method of destroying the whole nest. The flower-pods must now be looked over twice a day; and to assist the petals in bursting open the pod, small pieces of bafs-mat, a little wet, must be tied round the pod, just below the middle, in a single knot. As soon as the pod begins to break on one side, divide it exactly in the same manner at each of the other angles, with a pin-point or a small sharp pointed penknife; the petals will then have liberty to expand themselves uniformly, by being kept full in the middle, which will give the flower a bold and graceful appearance. Such flowers as are now opening must be shaded from the sun and rain, by means of oil-paper covers, or small hand-glasses placed over the top of the flower-stick. The flowers will appear to great advantage if the pots are placed on a low stage, the aspect of which should be full upon the South or South-East, and not placed too near old walls or buildings.

In

In order to prevent ear-wigs, the foot of the stage should be placed on strong earthen plates, constantly kept full of water. The Carnations in beds are by some means to be preserved from these vermin; and the best preventive yet known is to surround the stick and flower-stem with bird-lime, placing it within the cover to keep it dry, otherwise it would have no effect.

When the outward petals begin to expand, a round collar should be placed about the upper part of the pods, to keep them even; the most convenient thing for this is a card, or piece of stiff-paper, cut perfectly round, and of such a size that the extremity of the petals may cover the edge of it; the hole in the center of this card should be round, and sufficiently large to give all the petals that compose the flower ease to expand themselves. If a redundancy of petals appear, they must be artfully taken out, leaving only a proper number for perfection. In doing this, the greatest nicety is required; for if any of the other petals be bruised, they will soon turn brown, which will render the flower unfit for show.

It is an excellent plan, and practised by all florists, to reduce the bloom of a plant to three or four pods, which is done by lopping off all the small lateral ones, and clearing the main stem of all superfluous runners; by this means the bloom will be larger and more perfect. Those sorts that have short thick pods, are generally very double; such must be suffered to bloom them all.

Carnations

Carnations are very liable to run from the beautiful stripes into their plain original self-colour.—Rich composts contribute much to this disagreeable change; the only thing that can be done in this case is to plant a quantity of layers in a bed of common garden mould, the poorer the better, to preserve the colours.

The best time for layering Carnations, is when the side-shoots are long and strong enough for that purpose, which, in this part of the country, is the latter end of June, or beginning of July. The flowers at this time beginning to open, afford an opportunity of marking out such as have run from their colours; these must be particularly noticed, in order that they may not be mixed with the best flowers again. It being now the most proper time for layering, the first thing done is to strip the intended layers of all their lower leaves, to make room for the operation. Then shorten the tops of the layers with a knife, but do not cut them so low as to injure the heart of the plant. Raise the surface of the earth round the plant, making it very fine; adding, at the same time, some fresh compost. Being provided with a sufficient number of gib-sticks, (fern-gibs are the best and easiest come at, only requiring to be cut into proper lengths of four or five inches) bring down the layers to a proper depth for striking; then make choice of a strong joint about the middle part of the shoot, and, with a sharp penknife, make an incision at the lower part of the joint, making a slit exactly in the middle, half an inch long upwards; then, with the thumb

thumb and finger, force the shoot gently into the earth, observing to keep the top of the layer nearly upright; by which means the slit will be kept open; then place one of the gib-sticks close behind the cut, so that the forked part may keep down the layer in its proper place. Having laid down as many layers as are strong enough to undergo this operation, they must be covered with a little fine riddled compost, about half an inch deep, giving them a gentle watering.

Besides layering, there is another method of propagating Carnations, called piping. The soil necessary for this part of the work should be a stratum six inches thick of fine light earth, made very regular and even: The cuttings intended for piping ought to have two joints, and dressed in the same way as for layering, cutting them straight through close under the second joint. The earth, when these cuttings are to be planted, must be made moderately moist; then get a glass of suitable size for the number of cuttings, and take the circumference of the glass on the place prepared for that purpose, in order to know the bounds you have to place them on. Plant them in a regular manner about half an inch deep; when done, give them a gentle watering, that the earth may settle regularly about them. The pipings must have occasionally a little of the morning sun, but must be shaded from it when hot, by a covering of mats. The glasses should be taken off early in a morning, if dry, for half an hour, to admit fresh air, otherwise it will cause a mouldiness amongst the plants,
which

which will be of bad consequence to them. When the pipings are rooted, they will begin to grow, and spindle, and turn weak; the glasses must then be taken off every morning, and remain so till night; this is to be repeated until they become so hardy as to be removed into their winter situation.

When the Carnation layers are properly rooted, which will be in the course of five weeks, provided they have been kept regularly moist, they may then be taken away from the mother plant, and immediately put into halfpenny pots, filled with fresh earth, and placed in a hot-bed frame, or any convenient covering, for the Winter. Great care must be taken, when in this situation, to give them plenty of fresh air, and not to cover them close if the plants are wet; for if it is done in that state, they will turn mouldy and infectious.—Whenever the surface of the pots turns green or mossy, it must be stirred up about half an inch deep, adding a little fresh soil. This being of great service to the plants, the oftener it is repeated the stronger and healthier they will be.

To increase Carnations by piping is not near so certain a method as that of layering; on which account success in the latter way may oftener be expected, if the mother plants keep healthy, and the directions given be exactly attended to. Pipings are desirable, on account of their being not so apt to run from their true colours as layers are.

The best of the old stocks, and such as are vigorous
and

and healthy after the layers and pipings have been taken away, should be planted in a bed by themselves, protecting them from heavy rains and hard frosts, by covering them with hand-glasses, giving the plants free air and sun in the day-time, or as often as the season will allow; but by no means let the covering be kept off at nights. If the collection be small, they may remain in the pots, which must be sunk in the earth up to the rims, in a dry warm part of the garden, keeping them from bad weather, in the same manner as directed for those in beds; and they will frequently make a better or as good a bloom, and their increase be as prolific, as those in beds or pots, made up in the Spring, with fresh layers and pipings.

New kinds of Carnations are raised from seed:— Those who can save a little fine and good, set a great value on it, and not without reason; for that bought of feedsmen, after all the care and pains taken to raise it, will generally, if not always, prove good for nothing; it is therefore advisable for every florist to endeavour to save seed from his own plants; the likeliest to obtain it from are such as are thin of petals or leaves; those of the best properties should be marked for that purpose; the colours should be strong, bright, and regular, with large broad petals, and free from indenture on the edge.— When the bloom is over, the petals of course begin to wither; they must then be carefully taken out of the pod, or else it will turn mouldy and kill the seed; in doing this, take care not to pull out two things that look like
horns,

horns, (called by botanists the *style* or *stylus*) growing from the top of the seed-vessel. The pod must be shortened of nearly half its length, opening the remainder on one side down to the bottom of the seed-vessel, which will prevent water lodging. Be careful not to injure the seed-vessel in doing this, as it may be destructive to the seed.

The seed will be ripe in October, when their vessels will turn brown and hard, and the seed will be of a blackish colour. The greatest quantity of real fine Carnation seed I ever saw gathered, was taken from a few plants; and, what is very singular and surprising, they had previously been forced and bloomed in the house, and afterwards removed into an open sunny situation, the pots plunged up to the rims in a bed of light earth, where the seed ripened and came to full perfection.

The seed must be kept dry, and remain in the seed-vessel until the time of sowing, which is in April, in pots filled with fresh compost, sowing the seed thereon in a regular manner, but not too thick, barely covering the seed with a sprinkling of fine mould. The pots must be put in a shady situation, and kept moderately moist. As soon as the young plants are two or three inches high, and get six leaves, they should be planted out into a bed of fine fresh mould, at about six inches asunder, protecting them from heavy rains and severe frosts, in the same manner as before directed.

A description of the properties of a fine variegated double Carnation:—The stem should be strong, tall, and straight; not less than thirty, nor more than forty-five inches high; the foot-stalks, supporting the flowers, should be strong, elastic, and of a proportionate length.

The flower, or corolla, should be at least three inches in diameter, consisting of a great number of large well-formed petals; but neither so many as to give it too full and crowded an appearance, nor so few as to make it appear too thin and empty.

The petals should be long, broad, and substantial, particularly those of the lower or outer circle, commonly called the *guard leaves*; these should rise perpendicularly, about half an inch above the calyx, and then turn off gracefully, in a horizontal direction, supporting the interior petals, and altogether forming a convex, and nearly hemispherical corolla.

The interior petals should rather decrease in size, as they approach the centre of the flower, which should be well filled with them.

The petals should be regularly disposed alike on every side, imbricating each other in such a manner as that both their respective and united beauties may captivate the eye at the same instant: They should be nearly flat; however, a small degree of concavity, or inflection, at the lamina, or broad end, is allowable; but their edges should be perfectly entire, that is to say, free from notch, fringe, or indenture.

G

The

The calyx should be at least one inch in length, terminating with broad points, sufficiently strong to hold the narrow bases of the petals, in a close and circular body.

Whatever colours the flower may be possessed of, they should be perfectly distinct, and disposed in long regular stripes, broadest at the edge of the lamina, and gradually becoming narrower as they approach the unguis, or base of the petal, there terminating in a fine point. Each petal should have a due proportion of white, *i. e.* one half, or nearly so, which should be perfectly clear, and free from spots.

Bizarres, or such as contain two colours upon a white ground, are esteemed rather preferable to flakes, which have but one, especially when their colours are remarkably rich, and very regularly distributed.

Scarlet, purple, and pink, are the three colours most predominant in the Carnation; the two first are seldom to be met with in the same flower, but the two last are very frequently.

When the scarlet predominates, and is united with a paler colour, or, as it sometimes happens, with a very deep purple upon a white ground, it constitutes a scarlet bizarre, of which there are many shades and varieties, some richer, and others paler in their colours, as is the case with all the rest.

Pink Bizarres, are so called when the pink abounds. Purple Bizarres, when the purple abounds. Crimson Bizarres, consist of a deep purple and rich pink.

When

When the pink flake is very high in colour, it is distinguished by the appellation of *rose flake*; but some there are so nearly in the medium betwixt a pink and scarlet, that it can scarcely be defined to which class they belong.





A
SHORT SKETCH OF THE SEASONS,
AND THE
METHODS OF FORCING FLOWERS.

THE Spring is allowed by all to be the most agreeable season of the year. Nature then, roused from her lethargy, displays to our eyes a thousand enchanting beauties, and charms our ears with the most melodious music. Every thing seems to proclaim her renovation: The clouds distil their dews, and shed upon the earth, in fruitful profusion, that nutritious juice, which, by invigorating its powers,

powers, gives birth to flowers without number, and perfumes the air with the most delicious fragrance.

To this delightful season Summer succeeds, adorned with the most beautiful foliage, impervious to the noon-day sun, and whose ample shade invites to soft repose. The bosom of the earth, cloathed with smiling verdure, charms our eyes; whilst the chrystal brook, murmuring over its pebbly base, inspires in our minds the most pleasing contemplations.

Then Autumn, to set bounds to the efforts of Nature, or rather to bring her works to perfection, enters in golden attire, and with full hand lavishly scatters around those treasures, which are so necessary to the support and pleasure of life.

But in Winter, Nature, sunk again into her former languor, and stript of all her verdant charms, wears the most melancholy aspect. The earth is deluged with continual rains; to these succeed the horrors of frost; the unbridled rage of the winds spreads wide and undistinguishing desolation; the Sun, as if conscious of the general calamity, seems to turn his face from the dreary prospect; and the Earth herself, wrapt in snow, silently mourns the beauties of the Spring, the sweets of Summer, and the riches of Autumn. Yet this season is not without its advantages. It may be considered as the time of social tranquility, in which we may taste a thousand pleasures of domestic retirement. Nay, the skill and industry of man may put a force upon Nature, and, in spite of the rigours of Winter, produce in that

season all the beauty and fragrance of Spring. By persevering industry we may be enabled to exhibit a pleasant *garden* in a *chamber*; and that at a season when Nature, bound in Winter's icy fetters, lies torpid and incapable of acting.

But all kinds of flowers are not equally adapted for this purpose; some of them will not afford this pleasure. The most proper are the following:—

Hyacinths, double and single.

Tulips, early-blowers.

Polyanthus-Narcissus.

Narcissus nana, flore luteo minor; Dwarf Narcissus, with a yellow flower.

Narcissus incomparable; Primrose peerless.

Narcissus orange phoenix.

Narcissus van Sion.

Jonquilles, double and single.

Iris Persica; Persian Iris.

Dens canis.

Crocus vernus; Spring Crocus.

The Hyacinths, Polyanthus-Narcissus, Jonquilles, and Iris Persica, may be put either in pots, or upon glasses; but the rest of the bulbs in the foregoing catalogue will do much better in pots than glasses. The pots are of three inches diameter, and four or five deep; a depth sufficient to make the bulbs flower. Seven or eight inches is height enough for the glasses or bottles, and

and the mouths must be proportioned to the size of the bulbs, which are to be put into them about the middle of October, taking care that the bottom of the bulb touch the surface of the water, that the fibres may shoot into it. The water ought to be fresh rain water, and changed every month. Those who would have their bulbs in pots, must fill them with well-prepared earth, and observe that the top of the bulb be on a level with the surface of the earth.

The fibrous roots of the *Narcissus* and *Jonquille* are not apt to strike in water; these should therefore be first set in earth for four weeks, and then placed in the glasses, having first washed the roots, and taken care that all the fibres lie in the water.

When the bulbs are not wanted in flower before the end of January, or beginning of February, they should only be set in the window, and exposed to the sun every opportunity that offers; for the more they are in the air, the better they will succeed. But care must be taken, that the bulbs planted in the pots have as much moisture as is necessary, by means of a hole at the bottom of the pot, which is to be set for this purpose in a plate filled with water, and taken out again when the earth is moistened.

In places exposed to great cold, the pots and glasses must be removed from the window farther back into the room, during the night, to save them from the frost.

Such as have the advantage of stoves for exotics, pine-apples, &c. need only carry their pots and glasses
thither;

thither; plunging the former into the bark, and setting the latter upon it. They will then have fine flowers from December till the end of March without much trouble.

Those who have no stoves, and would have flowers as early as possible, must have proper frames made for bringing forward the flowers, and covered with glass. These beds are to be made like melon-beds, and filled with fresh bark, or with horse-dung to make them hotter. The glasses may be three feet by two, and about three feet from the ground. A rampart a foot thick must then be raised about the bed to prevent the cold from penetrating the dung. At the bottom of the bed let a layer of fresh horse-dung be laid, not trodden down, because that would hinder it from growing hot. Above this spread a layer of bark, quite fresh, and six inches thick; but when the dung begins to heat, add more bark till it be a foot thick; taking care to keep the glasses close, and to throw mats over them in the night to keep out the frost. After a week or two the pots are to be put into the bark, and the jars upon it; and then they will produce flowers as early and fine as those that are set in stoves for pines and exotics.

But those that do not care to take so much trouble may make use of a bed of the same proportion, only let it be raised above the ground, and exposed to the sun; and instead of dung, make it up of earth or bark, to plunge the pots in, or set the jars upon. To heat this frame, a kettle or a pot full of water is to be made use of,

of, which is to be kept warm with a little fire, that a moderate degree of heat may be conveyed to it by the exhaled vapour, which is very like a Summer dew: But special care must be taken that the water be not too hot, lest the burning vapour tinge and dry the points of the leaves, and so prevent the bulbs from springing.

The heating of the water in the glasses should also be carefully avoided; because it robs it of its salts, and makes it unfit for vegetation; and also infects the bulbs, rots the fibres, and kills the plant. Some florists, to bring their flowers forward, have provided cases to set their pots and glasses in, and made a fire under them; but they have always been disappointed of their expectation.

It would be easy to have flowers all the Winter, by pursuing the directions here laid down. But, to make a show, the flowers should be disposed in a pyramidal form, upon semicircular shelves, rising one above another, and gradually diminishing. This arrangement forms a grand mountain of flowers, which will strike the eye most agreeably.

Hyacinths are the finest of all the Winter flowers; the single flowers are the most early, and bear large trusses of different colours, which form a very agreeable variety. The double are very beautiful, and somewhat later. The colour of the red becomes deeper in pots or jars than when planted in the open ground.

Next to the Hyacinth, the Spring Tulips are the most beautiful, on account of the diversity of their colours.

lours. The fort called *Duke of Tol*, or *Duke Van Tol*, is so early that it may be had in December. It is of a scarlet colour, edged with yellow.

The *Polyanthus-Narcissus* is also very pretty.—Many forts are yellow and white, which make a charming appearance.

The *Jonquille* has so sweet a scent, so fine a shape, and so soft a colour, that it is one of the most agreeable Winter flowers; but the largest bulbs are to be picked out for this purpose, because the others will produce no flowers.

The three sorts of *Narcissus*, and the single *Jonquilles*, are also worthy of a place among the flowers that blow in Winter. The variety of their colours diversify the prospect, and render it more agreeable.

The *Iris Persica* and *Dens canis* are very fine. The first, besides a mixture of various colours, is decorated with a black velvet; the leaves of the latter are marbled, and the flowers resemble those of the *Cyclamen*. The purple and white are the best and most valued.

It must be observed, that to enjoy the pleasure of this Winter floral scene, the largest bulbs are to be chosen, otherwise it will be impossible to accomplish it: And also that the bulbs made use of will not be lost, but be in full vigour the next year; provided they be taken out of the glasses or pots as soon as the flowers are gone off, and then planted in the common beds two inches deep, having first cut off the tops and fibrous roots. There they are to stand till they be taken up along with the

the rest, and in the mean time they will multiply by offsets, and thus prove a nursery to supply the pots and glasses another year. As for the old ones, they will serve no more for this purpose; and the offsets being yet too small for the first year, recourse must be had to new bulbs.



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